

GROOVE DESIGN FOR PRECISION RUBBER/URETHANE CONDITIONING ROLLS

ABSTRACT

[0046] A conditioner roll design is provided that employs unique spiraled stepped grooves that enhance feeding of the crop mat when the rolls are abutted or at precise gaps. The groove has a leading edge and increased depth that allow expansion of the crop mat into the trailing gripper edges to provide gripping without intermeshing. The gripping side of the groove is nearly perpendicular to the direction of crop travel for positive gripping and advancing the crop. The grooves on the two rolls may be selectively timed to either mate at the point of contact or align a groove on one roll with a smooth surface on the other.